

WHAT IS CLAIMED IS:

1. A system comprising:

a bus; and

a plurality of agents coupled to said bus, each of the plurality of agents configured to arbitrate for said bus, and wherein a predetermined first agent of said plurality of agents is a default winner of an arbitration if none of said plurality of agents arbitrates for said bus during said arbitration.

2. The system as recited in claim 1 wherein said first agent is said default winner independent of which of said plurality of agents was last to use said bus.

3. The system as recited in claim 1 further comprising a plurality of request signals, each of said plurality of request signals corresponding to a respective agent of said plurality of agents and used by said respective agent to indicate whether or not said respective agent is arbitrating for said bus, and wherein said first agent is coupled to receive at least one of said plurality of request signals corresponding to other ones of said plurality of agents, and wherein said first agent is configured to determine if none of said plurality of agents is arbitrating responsive to said plurality of request signals.

4. The system as recited in claim 1 wherein said bus is a split transaction bus including an address bus and a data bus, and wherein said first agent is said default winner of said data bus responsive to none of said plurality of agents arbitrating for said data bus.

5. The system as recited in claim 1 wherein said first agent is configured to use said bus responsive to being said default winner only if said first agent has information to transfer on said bus.

6. The system as recited in claim 1 wherein said first agent is configured to arbitrate for said bus if at least one other of said plurality of agents is arbitrating for said bus during said arbitration and said first agent has information to transfer on said bus.

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~~7. The system as recited in claim 6 wherein said first agent is an equal arbitration participant with other ones of said plurality of agents.~~

~~8. The system as recited in claim 7 further comprising one or more arbiters configured to perform said arbitration, wherein said one or more arbiters are configured to maintain a state indicative of an arbitration priority of said plurality of agents, and wherein an agent winning an arbitration is changed to lowest priority in said arbitration priority~~

~~9. The system as recited in claim 8 wherein said first agent is changed to said lowest priority responsive to using said bus as said default winner.~~

~~10. An arbiter for a bus comprising:~~

~~a first circuit coupled to receive a plurality of request signals, each of said plurality of request signals corresponding to a respective agent of a plurality of agents coupled to said bus and indicative of whether or not said respective agent is arbitrating for said bus, wherein said first circuit is configured to grant use of said bus to a first agent if none of said plurality of agents is arbitrating for said bus, said first agent predetermined to be granted use of said bus if none of said plurality of agents is arbitrating for said bus.~~

~~11. The arbiter as recited in claim 10 wherein said first circuit is configured to grant use of said bus to said first agent independent of which of said plurality of agents was last to~~

use said bus.

12. The arbiter as recited in claim 10 wherein said bus is a split transaction bus including an address bus and a data bus, and wherein said first agent is granted use of said data bus responsive to none of said plurality of agents arbitrating for said data bus.

13. ~~The arbiter as recited in claim 10 further comprising a second circuit configured to determine if said first agent wins an arbitration for said bus if at least one of said plurality of agents is arbitrating for said bus, and wherein said second circuit is configured to determine if said first agent wins said arbitration according to a predetermined arbitration scheme in which said first agent is an equal participant with other ones of said plurality of agents.~~

14. The arbiter as recited in claim 10 further comprising a storage coupled to said second circuit, said storage storing an indication of the relative priority of said other ones of said plurality of agents to said first agent, and wherein a winner of said arbitration is updated to lowest priority.

15. The arbiter as recited in claim 14 wherein said first agent is indicated as said lowest priority responsive to using said bus in response to being granted said bus if none of said plurality of agents is arbitrating.

16. A method comprising:

granting use of a bus to a first agent of a plurality of agents responsive to none of said plurality of agents arbitrating for said bus, said first agent predetermined to be granted use of said bus if none of said plurality of agents is arbitrating for said bus.

17. The method as recited in claim 16 wherein said granting is independent of which of said plurality of agents was last to use said bus.

18. The method as recited in claim 16 further comprising:

receiving a plurality of request signals, each of said plurality of request signals corresponding to a respective agent of said plurality of agents and indicative of whether or not said respective agent is arbitrating for said bus; and

determining that none of said plurality of agents is arbitrating responsive to said plurality of request signals.

19. The method as recited in claim 16 wherein said bus is a split transaction bus including an address bus and a data bus, and wherein said granting comprises granting use of said data bus to said first agent.

20. The method as recited in claim 16 further comprising using said bus by said first agent in response to said granting only if said first agent has information to transfer on said bus.

21. The method as recited in claim 20 further comprising arbitrating for said bus by said first agent if one or more other ones of said plurality of agents are arbitrating.

22. The method as recited in claim 21 further comprising determining a winner of an arbitration according to a predetermined arbitration scheme.

23. The method as recited in claim 22 wherein said predetermined arbitration scheme includes maintaining a priority for each of said plurality of agents, and wherein said

winner is made lowest priority, the method further comprising making said first agent lowest priority responsive to said first agent using said bus in response to said granting.

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